



(19)

Europäisches Patentamt  
European Patent Office  
Office européen des brevets



(11) EP 0 835 755 A3

(12)

## EUROPEAN PATENT APPLICATION

(88) Date of publication A3:  
25.11.1998 Bulletin 1998/48

(51) Int Cl. 6: B41F 33/00

(43) Date of publication A2:  
15.04.1998 Bulletin 1998/16

(21) Application number: 97307998.1

(22) Date of filing: 09.10.1997

(84) Designated Contracting States:  
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC  
NL PT SE

Designated Extension States:  
AL LT LV RO SI

(30) Priority: 11.10.1996 US 728700

(71) Applicant: Hurlertron, Incorporated  
Danville, Illinois 61834-4004 (US)

(72) Inventors:

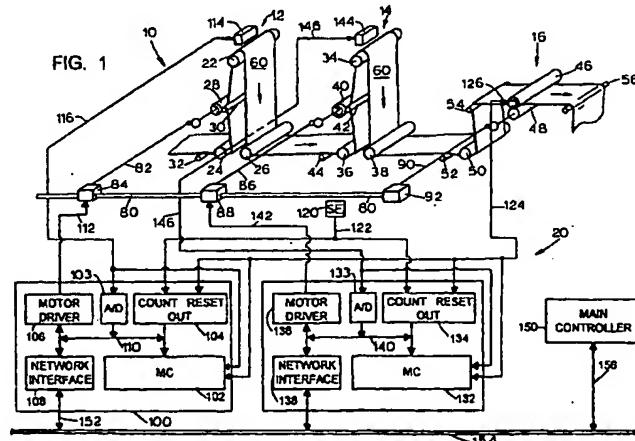
- Sller, Steven J.  
Cary (60013) Illinois (US)
- Hilker, Scott T.  
Winnetka, Illinois 60093 (US)
- Petrin, Jeffrey C.  
Arlington Heights (60004) Illinois (US)

(74) Representative: W.P. Thompson & Co.  
Coopers Building,  
Church Street  
Liverpool L1 3AB (GB)

### (54) Apparatus for scanning colored registration marks

(57) The present specification describes an apparatus for scanning colored registration marks printed on a moving web by a plurality of printing cylinders 28,40 of a printing press 10, the apparatus being provided with a photoemitter 160 for generating a beam of light directed at the moving web 60, a detector 182 for detecting the amount of light reflected from the moving web 60 and generating a reflectance signal having a magnitude relating to the amount of light, an A/D converter 103,133 for periodically sampling the reflectance signal to generate a number of scan values, a memory for storing the

scan values, and a baseline generator for determining a baseline level of the reflectance signal. The baseline generator may include means for assigning each of the scan values to one of a plurality of predetermined ranges of values based on the magnitude of the scan values, means for determining a baseline range from the plurality of the predetermined ranges based on the range having the largest number of the scan values, and means for determining the baseline level based upon the baseline range. The predetermined ranges may be overlapping ranges.





BEST AVAILABLE COPY

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	US 4 994 975 A (MINSCHART MARC G) 19 February 1991	6,12	B41F33/00
Y	* the whole document *	1,2, 16-28	
X	EP 0 488 608 A (HARLAND CROSFIELD LTD) 3 June 1992	6,12	
Y	* the whole document *	1,2, 16-28	
Y	US 5 215 011 A (MONNEY PATRICK) 1 June 1993	1,2, 16-28	
	* the whole document *	-----	
Y	DE 33 32 750 A (DETECTRON ELEKTRONIK GMBH & CO) 4 April 1985	1,2	
	* abstract *	-----	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			B41F
<p>The present search report has been drawn up for all claims</p>			
Place of search	Date of completion of the search	Examiner	
MUNICH	15 September 1998	Zellhuber, W	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons S : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			